In the Claims

This listing of the Claims will replace all prior versions and listings of the Claims in the application:

1. (currently amended) A video imaging system, comprising:

a camera head for generating image data;

a camera control unit;

a light source for generating light ~~mounted within the camera control unit~~;

a first cable, for connecting said camera head to said camera control unit, said first cable including a single protective jacket enclosing:

at least one channel for transmitting information between said camera head and said camera control unit, and

a light guide in the first cable for transmitting light from the light source to an object, wherein said camera head is receptive of light reflected from the object thereby generating the image data, and

wherein the first cable engages the camera head so as to direct light longitudinally completely through the camera head.

2. (original) The video imaging system according to Claim 1 wherein said at least one channel comprises two electrical conductors.

3. (original) The video imaging system according to Claim 1 wherein said cable comprises two channels.

4. (original) The video imaging system according to Claim 1 wherein said cable comprises four channels.

5. (original) The video imaging system according to Claim 4 wherein said four channels comprise eight electrical conductors.

6. (previously presented) The video imaging system according to Claim 1 wherein said camera control unit generates a command signal for operating said camera head, and wherein said at least one channel transmits the command signal from said camera control unit to said camera head.

7. (previously presented) The video imaging system according to Claim 1 wherein the information includes a control signal in the nature of camera operating information.

8. (previously presented) The video imaging system according to Claim 7 wherein said at least one channel transmits the control signal and the image data.

9. (previously presented) The video imaging system according to Claim 8 wherein the control signal and the image data are multiplexed.

10. (previously presented) The video imaging system according to Claim 7 wherein the image data and the control signal are generated by said camera head.

11. (previously presented) The video imaging system according to Claim 9 wherein the control signal and the image data are de-multiplexed in the camera control unit.

12. (previously presented) The video imaging system according to Claim 1 wherein said camera head generates a control signal, and wherein said at least one channel transmits the control signal from said camera head to said camera control unit.

13. (cancelled).

14. (cancelled).

15. (previously presented) The video imaging system according to Claim 1 wherein light output from said light source is directed to said light guide.

16. (previously presented) The video imaging system according to Claim 1 wherein light output of said light source is directed to said camera control unit.

17. (currently amended) The video imaging system according to Claim 16 wherein said first cable is detachably connectable to said camera control unit by a connector, and wherein the light output of said light source passes through said camera control unit to the connector.

18. (previously presented) The video imaging system according to Claim 17 wherein said camera control unit further comprises a sleeve for guiding of the light output of said light source to the connector.

19. (currently amended) The video imaging system according to Claim 1 wherein said first cable is wired to said camera head.

20. (previously presented) The video imaging system according to Claim 1 further comprising an endoscope, wherein said camera head receives light from said light guide and transmits the light to said endoscope.

21. (previously presented) The video imaging system according to Claim 1 wherein the light is transmitted through said camera head.

22. (currently amended) The video imaging system according to Claim 20 wherein the light is transmitted from said camera head to said endoscope through an intermediate coupling mounted to said camera head and a third cable for connecting said intermediate coupling and said endoscope.

23. (currently amended) The video imaging system according to Claim **[[**13**]]** 1 wherein the camera control unit further comprises a light deflector, pivotally mounted along a path between the light source and the light guide, to sever the path whenever the cable is disconnected from the camera control unit.

24. (previously presented) The video imaging system according to Claim 7 wherein at least the control signal and the image data are transmitted utilizing a digital serial protocol.

25. (previously presented) The video imaging system according to Claim 24 wherein the digital serial protocol is Low-Voltage Differential Signaling.

26. (currently amended) A video imaging system, comprising:
a camera head for generating image data;
a light source mounted within a camera control unit; and

a cable including a single protective jacket enclosing:

at least one electrical channel for transmitting the image data and a control signal in the nature of camera operating information from said camera head to the camera control unit, and

a light guide in the cable for transmitting light from the light source to an object, wherein said camera is receptive of light reflected from the object thereby generating the image data, and

wherein the cable longitudinally engages the camera head so as to direct light longitudinally completely through the camera head.

27. (original) The video imaging system according to Claim 26 wherein said at least one channel comprises two electrical conductors.

28. (original) The video imaging system according to Claim 26 wherein said cable comprises two channels.

29. (original) The video imaging system according to Claim 26 wherein said cable comprises four channels.

30. (original) The video imaging system according to Claim 29 wherein said four channels comprise eight electrical conductors.

31. (previously presented) The video imaging system according to Claim 26 wherein said at least one electrical channel transmits the image data and the control signal in a single direction.

32. (previously presented) The video imaging system according to Claim 26 wherein the image data and the control signal are multiplexed.

33. (cancelled).

34. (previously presented) The video imaging system according to Claim 26 wherein said cable is wired to said camera head.

35. (previously presented) The video imaging system according to Claim 26 further comprising an endoscope, wherein said camera head receives light from said light guide and transmits the light to said endoscope.

36. (previously presented) The video imaging system according to Claim 26 wherein the light is transmitted through said camera head.

37. (previously presented) The video imaging system according to Claim 35 wherein the light is transmitted from said camera head to said endoscope through an intermediate coupling mounted to said camera head and a cable connecting said intermediate coupling and said endoscope.

38. (previously presented) The video imaging system according to Claim 26 wherein at least the image data and the control signal are transmitted utilizing a digital serial protocol.

39. (previously presented) The video imaging system according to Claim 38 wherein the digital serial protocol is Low-Voltage Differential Signaling.

40. (cancelled).

41. (withdrawn) A video imaging connection system comprising:

a receptacle, having optical and electrical components, for receiving a connector; and

a connector detachably connectable with the receptacle, having a body with a front surface, a light source guide and an electrical edge-connector terminating beyond the front surface, the light source guide and electrical edge-connector engaging the optical and electrical components, respectively, upon advancement of the connector into the receptacle.

42. (withdrawn) The video imaging system connector according to claim 41 wherein the electrical edge-connector is a printed wiring board.

43. (withdrawn) The video imaging system connector according to claim 42 wherein the electrical edge-connector is keyed for connection to the receptacle.

44. (withdrawn) The video imaging system connector according to claim 41 wherein the body is keyed for connection to the receptacle.

45. (withdrawn) The video imaging system connector according to claim 41 further comprising a light deflector, which obstructs a path between said connector and said receptacle once the connector is removed from the receptacle.

46. (currently amended) A video imaging system comprising:

a camera including an imager for receiving photonic energy from an object;

a control unit receptive of a control signal from the camera, the control unit generating a command signal for controlling the camera;

a cable including at least one channel for bi-directionally transmitting the command and control signals between the camera and the control unit;

a light source mounted within the control unit for generating the photonic energy;

a light guide in the cable for transmitting the photonic energy to the object, wherein the cable longitudinally engages the camera so as to direct light longitudinally completely through the camera; and

a jacket enclosing the at least one channel and the light guide.

47. (previously presented) The video imaging system as set forth in Claim 46 further comprising an endoscope coupled to the camera.

48. (previously presented) The video imaging system as set forth in Claim 46 wherein the bi-directional signals are transmitted utilizing a digital serial protocol.

49. (previously presented) The video imaging system according to Claim 48 wherein the digital serial protocol is Low-Voltage Differential Signaling.

50. (previously presented) The video imaging system as set forth in Claim 46 wherein the imager generates image data from the photonic energy.

51. (previously presented) The video imaging system as set forth in Claim 50 wherein the control unit is receptive of the image data.

52. (previously presented) The video imaging system as set forth in Claim 46 wherein the control signal is in the nature of camera operating information.

53. (previously presented) The video imaging system as set forth in Claim 46 wherein the control signal is in the nature of software programs, timing signal data, camera identification information or camera use information.

54. (previously presented) The video imaging system as set forth in Claim 7 wherein the information is in the nature of software programs, timing signal data, camera identification information or camera use information.

55. (previously presented) The video imaging system as set forth in Claim 26 wherein the control signal is in the nature of software programs, timing signal data, camera identification information or camera use information.

56. (currently amended) A video imaging system comprising:

a camera for generating image data;

a control unit for controlling the camera;

a cable including a channel for transmitting information between the camera and the control unit, wherein the information comprises at least a control signal in the nature of camera operating information; and

a light guide in the cable for transmitting light from **[[a]]** the light source mounted within the control unit to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data, and

wherein the cable longitudinally engages the camera so as to direct light longitudinally completely through the camera.

57. (previously presented) The video imaging system as set forth in Claim 56 wherein the control signal is multiplexed with the image data on the channel.

58. (previously presented) The video imaging system as set forth in Claim 56 further comprising a jacket enclosing the channel and the light guide.

59. (previously presented) The video imaging system as set forth in Claim 56 wherein the control signal comprises a signal in the nature of software programs, camera operating information, a timing signal, camera identification information or camera use information.

60. (currently amended) A cable for transmitting a signal between a camera and a control unit for controlling the camera, the cable comprising:

a channel for transmitting information between the camera and the control unit, wherein the information comprises at least a control signal in the nature of camera operating information;

a guide element spanning the control unit and coupled to a light source and the cable;

a light guide positioned in and aligned along the guide element and the cable for transmitting light from **[[a]]** the light source mounted within the control unit to an object, wherein the camera is receptive of light reflected from the object; and

a jacket enclosing the channel and the light guide.

61. (currently amended) The cable as set forth in Claim 60 wherein the ~~at least one~~ channel comprises two electrical conductors.

62. (currently amended) The cable as set forth in Claim 60 wherein the ~~at least one~~ channel comprise four electrical conductors.

63. (currently amended) The cable as set forth in Claim 60 wherein the ~~camera generates~~ information further comprises image data generated from the light reflected from the object.

64. (currently amended) The cable as set forth in Claim **[[**60**]]** 63 wherein the control signal and the image data are multiplexed on the ~~at least one~~ channel.

65. (previously presented) The video imaging system as set forth in Claim 1 wherein the at least one channel is an electrical channel.

66. (previously presented) The video imaging system as set forth in Claim 1 wherein the information comprises a control signal in the nature of camera operating information and the image data.

67. (currently amended) A video imaging system comprising:

a camera for generating image data;

a control unit for controlling the camera;

a cable including a channel for transmitting information between the camera and the control unit, wherein the information comprises at least a control signal in the nature of camera operating information; **[[**and**]]**

a guide element spanning the control unit and coupled to a light source and the cable and;

a light guide positioned in and aligned along the guide element and the cable for transmitting light through the control unit from **[[**a**]]** the light source to an object,

wherein the cable longitudinally engages the camera so as to direct light longitudinally completely through the camera and wherein the camera is receptive of light reflected from **[[**the**]]** an object thereby generating the image data.

68. (new) The video imaging system as set forth in Claim 1 further comprising:

a second cable extending between the light source and the camera control unit; and

a guide element spanning the camera control unit and coupled to the first and second cables.

69. (new) The video imaging system as set forth in Claim 68 further comprising:

a plug for terminating the first cable;

a receptacle in the camera control unit for receiving the plug and the guide element.

70. (new) The video imaging system according to Claim 69 wherein said light source is mounted within said camera control unit.

71. (new) The video imaging system according to Claim 69 wherein the light is transmitted through the camera head.

72. (new) The video imaging system according to Claim 1 wherein the light guide is positioned in the first cable.

73. (new) A video imaging system, comprising:

a camera head for generating image data;

a camera control unit;

a light source for generating light;

a first cable, for connecting the camera head to the camera control unit, the cable including a single protective jacket enclosing:

at least one channel for transmitting information between the camera head and the camera control unit;

a second cable extending between the light source and the first cable through the camera control unit directly engaging the first cable; and

a light guide positioned in the first and second cables for transmitting light from the light source to an object through the camera head, wherein the first cable longitudinally engages the camera head so as to direct light longitudinally completely through the camera head and wherein the camera head is receptive of light reflected from the object thereby generating the image data.